Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

- I. (currently amended) A method for optimizing response time of physical devices
 in a data storage system comprising:
- 3 collecting statistics for each of the physical devices;
- determining from the statistics the n most active of the physical devices; and
- for each of the n most active of the physical devices, adjusting a mirror service
- policy associated with one or more mirrored logical volumes serviced by the physical
 device to reduce seek time
- 1 2. (original) The method of claim 1, wherein the statistics include utilization and
- wherein adjusting is performed if the utilization of the physical device is greater than a
- 3 threshold value.
- 1 3. (original) The method of claim 1, wherein adjusting comprises:
- 2 using a cost function analysis to determine that workload assigned to the one or
- 3 more selected mirrored logical volumes according to a current mirror service policy can
- 4 be re-assigned to a corresponding mirrored copy according to a new mirror service
- 5 policy, the cost function analysis indicative of seek time and involving the selected
- 6 physical device and any physical device on which a mirrored copy resides.
- 1 4. (original) The method of claim 3, wherein the physical devices involved in the
- 2 cost function analysis are physical mirrors.
- 1 5. (original) The method of claim 3, wherein using comprises;
- 2 computing cost functions for each of the physical devices involved in the cost
- 3 function analysis and determining a maximum value from the computed cost functions,
- 4 based on the current mirror service policy and the new mirror service policy.

- 1 6. (original) The method of claim 5, wherein using comprises:
- 2 determining that the reassignment of workload can be made if the maximum value
- 3 based on the new mirror service policy is less than the maximum value based on the
- 4 current policy.
- 1 (original) The method of claim 6, wherein adjusting comprises processing the one 7.
- 2 or more logical volumes in a sequence beginning with the outermost logical volume
- bordering logical volumes serviced by another physical device. 3
- 1 (original) The method of claim 7, wherein, for each successive one of the 8.
- 2 processed logical volumes, the new mirror service policy of an immediate predecessor of
- 3 the processed logical volumes is used as the current mirror service policy for the cost
- 4 function analysis.
- 1 (original) The method of claim 2, wherein the threshold value comprises fifty 9.
- 2 percent.
- 1 (currently amended) A computer program product residing on a computer 10.
- 2 readable medium for optimizing response time of physical devices in a data storage
- 3 system, comprising instructions for causing a computer to:
- 4 collect statistics for each of the physical devices;
- 5 determine from the statistics the n most active of the physical devices; and
- б for each of the n most active of the physical devices, adjust a mirror service policy
- 7 associated with a mirrored logical volume services by the physical device to reduce seek
- 8 time.
- 1 11. (original) A data storage system comprising:
- 2 physical devices having mirror logical volumes stored thereon;
- a storage controller for controlling access to the physical devices; and 3
- 4 wherein the storage controller collects for the physical devices statistics including
- utilization and, for each of n of the most active of the physical devices, adjusts mirror 5

- 6 service policy associated with a mirrored logical volume serviced by the physical device
- 7 to minimize seek time when the utilization is greater than a threshold value.
- 1 12. (new) The computer program of claim 10 wherein the mirror service policy is
- 2 adjusted in response to simulation of a new mirror service policy.
- 1 13 (new) The computer program of claim 12 wherein the mirror service policy is
- 2 adjusted in response to a cost function analysis of the selected physical device as a result
- 3 of a current mirror service policy and a cost function analysis of the selected physical
- 4 device as a result of the new mirror service policy.
- 1 14. (new) The computer program of claim 11 wherein the mirror service policy is
- 2 adjusted in response to simulation of a new mirror service policy.
- 1 15. (new) The computer program of claim 14 wherein the mirror service policy is
- 2 adjusted in response to a cost function analysis of the selected physical device as a result
- 3 of a current mirror service policy and a cost function analysis of the selected physical
- 4 device as a result of the new mirror service policy.